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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,599	04/16/2004	Matthew Englehart	MWS-081	1199
959 7590 09/07/2007 LAHIVE & COCKFIELD, LLP ONE POST OFFICE SQUARE BOSTON, MA 02109-2127			EXAMINER FRANCIS, MARK P	
			ART UNIT 2193	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/826,599

Applicant(s)

ENGLEHART, MATTHEW

Examiner

Mark P. Francis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. This action is responsive to the application filed on April 16, 2004.
2. Claims 1-30 have been examined.

Oath/Declaration

3. The Office acknowledges receipt of a properly signed oath/declaration filed July 29, 2004.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 23-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With respect to claim 23-24 these claims recite a medium for use with an electronic device holding instructions executable by the device that comprise of creating and building a preview of code representative of a software component prior to code generation for the graphical model. The body of the claim can be implemented using software means only (i.e. computer programs per se) and does not necessarily require the use of hardware to execute. Therefore, the claims as a whole are rejected under 35 U.S.C. 101 as being Non-Statutory.

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As a suggestion, Applicant could add the phrase, "storage medium having a processor" to the preamble of each of the independent claims to overcome this rejection.

The rejection of the base claims are incorporated into their dependent claims.

Appropriate correction is required.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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7. Claims 1-30 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-26 of copending Application No. 10/698820 in view of Daly. US Patent 7,069,542.

This is a provisional obviousness-type double patenting rejection.

Although the conflicting claims are not identical, they are not patently distinct from each other because they are directed to substantially the same invention and recites only obvious differences which would have been obvious to one of ordinary skill in the art of program development at the time of the invention.

The corresponding claims are as follows:

Following are some examples of the correspondence between the patented claims and instant claims.

Instant App Claim #'s	App 10/698820 Claim #'s
1	1
In a graphical modeling environment, a method, comprising the steps of:	In an electronic device having a graphical modeling and execution environment, said graphical modeling and execution environment including at least one graphical model, a method comprising the steps of:

receiving a user request to define a property for a component of a graphical model;	Providing a user interface with a plurality of selectable parameters for a custom storage class, said custom storage class specifying the manner in which an automatic code generator creates source code corresponding to data referenced by said graphical model in said graphical modeling and execution environment;
and displaying the preview of the code on a graphical user instance.	And creating a custom storage class in said graphical modeling and execution environment utilizing parameters selected by a user from said plurality of selectable parameters.

Regarding claim 1, It would have been obvious to one of ordinary skill in the art to omit the features of generating a preview of code representative of the component of the block diagram prior to generation of code for the graphical model;

Further, Applicant's invention includes the newly introduced limitations generating a preview of code representative of the component of the block diagram prior to generation of code for the graphical model; Daly, U.S. Pat 7,069,542, recites this limitation in Col 6:15-26, "...the notify model is a graphical representation of a user interface..."

It would have been obvious to one of ordinary skill in the art to modify claim 1 to generate a code preview of component of the block diagram as taught by Daly.

The modification would have been obvious because one of ordinary skill in the art would have been motivated to provide a system and method for incremental actions relating to notify and target models.(Daly:Col 4:23-26)

As to claims 2-30, Since they're independent and dependent. Claims that are related to claim 1 above, they're rejected for the same reason as claim 1 under obviousness type double patenting.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-1-5,7-8,10-14, and 16-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Daly. (U.S. Pat 7,069,542)

Independent claims

With respect to claims 1 and 23, Daly discloses a medium for use with an electronic device holding instructions executable by the electronic device(Col 4:35-42, "...computer system...", Col 4:55-60, "...Computer system...") for performing a method, comprising the steps of: receiving a user request to define a property for a component of a graphical model;(Col 7:17-30, "...is created or modified by a user...") generating a preview of code representative of the component of the block diagram prior to generation of code for the graphical model; (Col 6:15-26, "...the notify model is a graphical representation of a user interface...") and displaying the preview of the code on a graphical user instance.(Col 6:20-26, "...the source code files generated by the development environment based on the graphical/notify model...")

With respect to claim 19 and 24, Preston discloses a medium for use with an electronic device holding instructions executable by the electronic device for performing a method, (Col 4:35-42, "...computer system...", Col 4:55-60, "...Computer system...") comprising the steps of: automatically updating a preview of code representative of a setting of a component of a graphical model in response to the user altering the setting;(Col 6:20-27, "...As such, changes made by the developer to the notify model may propagate changes to target model...") and displaying the updated code on a graphical user

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interface. (Col 6:53-60, "...the source code automatically generated by the code generator...")

With respect to claim 25, Preston discloses a system for generating and displaying a graphical programming application, (Col 6:15-30, "...which the notify model is a graphical representation of a user interface...") comprising: user-operable input means for inputting data to the graphical programming application; (Col 7:18-27, "...a object in notify model is created or modified by user...") a display device for displaying a graphical model; (e.g. See Fig. 3 and related text)

and an electronic device (e.g. See Fig. 1 and related text) including memory for storing computer program instructions and data, (Col 5:50-57, "...stored in memory...") and a processor for executing the stored computer program instructions, (Col 5:10-17, "...CPU is a processing unit...") the computer program instructions including instructions for providing a code preview to a user on the display device, (Col 6:15-26, "...the notify model is a graphical representation of a user interface...")

wherein the code preview displays code representative of a component of the block diagram after the user defines a property of the component using the user-operable input means. (Col 6:20-26, "...the source code files generated by the development environment based on the graphical/notify model...")

With respect to claim 28, Preston discloses a system for generating and displaying a graphical programming application, (Col 6:15-30, "...which the notify model is a

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graphical representation of a user interface...) comprising: user-operable input means for inputting data to the graphical programming application; (Col 7:18-27, "...a object in notify model is created or modified by user...")

a display device for displaying a graphical model; (Col 5:40-45, "...an external display such as output device...")

and an electronic device(e.g. See Fig. 1 and related text) including memory for storing computer program instructions and data, (Col 5:10-17, "...CPU is a processing unit...") and a processor for executing the stored computer program instructions, (Col 5:10-17, "...CPU is a processing unit...") the computer program instructions including instructions for automatically updating code representative of a setting for a component in the graphical model in response to the user altering the setting and displaying the updated code. (Col 6:20-27, "...As such, changes made by the developer to the notify model may propagate changes to target model...")

Dependent claims

With respect to claim 2, the rejection of claim 1 is incorporated respectively and further, Daly discloses that the step of defining a setting for a component comprises entering a parameter in a graphical user interface. (Col 7:18-28, "...the changes in an object in notify model...")

With respect to claim 3, the rejection of claim 2 is incorporated respectively and further, Daly discloses that the generated code is displayed on the same graphical user

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interface used to enter the parameter. (Col 6:53-65, "...the source code automatically generated...")

With respect to claim 4, the rejection of claim 1 is incorporated respectively and further, Daly discloses that generated code comprises a subset of code for the component. (Col 7:53-58, "...which correlates portions of objects modified...")

With respect to claim 5, the rejection of claim 4 is incorporated and further, Daly discloses that the subset of code corresponds to the setting defined by the user. (Col 7:19-24, "...an object in notify model...As a result of the notifications by the user...")

With respect to claim 7, the rejection of claim 1 is incorporated and further, Daly discloses that the step of generating code comprises an execution engine generating code corresponding to the component. (Col 6:15-25, "...the source code files generated by the development environment...")

With respect to claim 8, the rejection of claim 1 is incorporated and further, Daly discloses that the generated code comprises a symbolic, non-literal representation of code corresponding to the component. (Col 7:18-25, "...an object in notify model(e.g. an EJB...")

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With respect to claim 10, the rejection of claim 1 is incorporated and further, Daly discloses that the steps of generating and displaying a preview of code execute in real-time after receiving the user request. (Col 6:20-27, "...As such, changes made by the developer to the notify model may propagate changes to target model...")

With respect to claim 11, the rejection of claim 1 is incorporated and further, Daly discloses the step of altering the property for the component after the step of displaying the generated code. (Col 7:53-63, "...could also collect additional data which correlates portions of objects modified...")

With respect to claim 12, the rejection of claim 11 is incorporated and further, Daly discloses the steps of generating code representative of the altered property and displaying the code representative of the altered property on the graphical user interface. (Col 6:20-27, "...As such, changes made by the developer to the notify model may propagate changes to target model...")

With respect to claim 13, the rejection of claim 1 is incorporated and further, Daly discloses the step of altering a second property in the graphical model after the step of displaying the generated code. (Col 7:18-28, "...the changes in an object in notify model...")

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With respect to claim 14, the rejection of claim 11 is incorporated and further, Daly discloses the steps of generating code representative of the altered second property and displaying the code representative of the altered property on the graphical user interface. (Col 6:15-26, "...the notify model is a graphical representation of a user interface...")

With respect to claim 16, the rejection of claim 1 is incorporated and further, Daly discloses that the user defines the property by entering a parameter for the component in a dialog box associated with the component. (Col 2:45-50, "...drop down list boxes...")

With respect to claim 17, the rejection of claim 16 is incorporated and further, Daly discloses that the dialog box includes a code preview field for displaying the code.(Col 2:45-52, "...and place the user interface controls in the graphical development environment...")

With respect to claim 18, the rejection of claim 1 is incorporated and further, Daly discloses that the steps of generating code representative of the component of the block diagram.(Col 6:20-26, "...the source code files generated by the development environment based on the graphical/notify model...")

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and displaying the generated code on a graphical user interface are executed automatically in response to the user defining the property. (Col 6:53-60, "...the source code automatically generated by the code generator...")

With respect to claim 20, the rejection of claim 19 is incorporated and further, Daly discloses that the user alters the setting using the graphical user interface. (Col 6:20-27, "...As such, changes made by the developer to the notify model may propagate changes to target model...")

With respect to claim 21, the rejection of claim 19 is incorporated and further, Daly discloses that the graphical user interface displays the updated code in real time after the step of the user altering the setting. (Col 6:20-27, "...As such, changes made by the developer to the notify model may propagate changes to target model...")

With respect to claim 22, the rejection of claim 19 is incorporated and further, Daly discloses the step of the user canceling the alteration of the setting after viewing the code. (Col 6:20-27, "...As such, changes made by the developer to the notify model may propagate changes to target model...")

With respect to claim 26, the rejection of claim 25 is incorporated and further, Daly discloses that the input means comprises a graphical user interface displayed on the display device. (Col 6:60-67, "...between the graphical model of the user interface...")

With respect to claim 27, the rejection of claim 26 is incorporated and further, Daly discloses that the graphical user interface includes a field for displaying the code preview. (Col 6:15-27, "...the notify model306 is a graphical representation of a user interface...")

With respect to claim 29, the rejection of claim 28 is incorporated and further, Daly discloses that the input means comprises a graphical user interface displayed on the display device. (Col 6:60-67, "...between the graphical model of the user interface...")

With respect to claim 30, the rejection of claim 29 is incorporated and further, Daly discloses that the graphical user interface includes a field for displaying the updated code. (Col 6:20-27, "...As such, changes made by the developer to the notify model may propagate changes to target model...")

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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11. Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly in view of Miller. (U.S. Pat 6,175,948)

With respect to claim 6, the rejection of claim 1 is incorporated and further,

Daly does not disclose that the step of generating code comprises a predictor mechanism generating an estimation of the code.

Miller discloses that the step of generating code comprises a predictor mechanism generating an estimation of the code(Col 7:10-25, "...User component selection...performance estimates as specified...")in an analogous system for the purpose of providing a method and apparatus for a waveform compiler that provides waveform application development, allows partitioning of that application functionality to a target architecture, and further provides a way of generating and optimizing code and ancillary target software for use in communication systems.(Miller:Col 2:10-16)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to include a predictor module that generates software code estimates.

The modification would have been obvious because one of ordinary skill in the art would have been motivated to provide a method and apparatus for a waveform compiler that provides waveform application development, allows partitioning of that application

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functionality to a target architecture, and further provides a way of generating and optimizing code and ancillary target software for use in communication systems.(Miller:Col 2:10-16)

With respect to claim 15, the rejection of claim 1 is incorporated and further, Daly does not disclose that the component comprises one of a block, a signal, a subsystem and a custom storage class.

Miller discloses that the component comprises one of a block, a signal, a subsystem and a custom storage class.(Col 5:58-65, "...from building blocks...", Col 7:35-42, "...in the signal processing domain...", Col 10:15-18, "...There are several classes...") in an analogous system for the purpose of providing a method and apparatus for a waveform compiler that provides waveform application development, allows partitioning of that application functionality to a target architecture, and further provides a way of generating and optimizing code and ancillary target software for use in communication systems.(Miller:Col 2:10-16)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to include a block, a signal, a subsystem and a custom storage class to Daly's invention using the teachings of Miller.

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The modification would have been obvious because one of ordinary skill in the art would have been motivated to provide a method and apparatus for a waveform compiler that provides waveform application development, allows partitioning of that application functionality to a target architecture, and further provides a way of generating and optimizing code and ancillary target software for use in communication systems. (Miller:Col 2:10-16)

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daly (U.S. Pat 7,069,542) in view of Manu. (U.S. PGPUB 2005/0114832)

With respect to claim 9, the rejection of claim 1 is incorporated and further,

Daly does not disclose that the generated code comprises pseudo-code.

Manu discloses that the generated code comprises pseudo-code. (Col 4:0039, "...a block of pseudo code...") in an analogous system for the purpose of making the testing of API's easier by functionally modeling test software and automatically generating test code from the model in one or more target languages. (Manu:Col 1:0004)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to include pseudo code to Daly's invention.

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The modification would have been obvious because one of ordinary skill in the art would have been motivated to make the testing of API's easier by functionally modeling test software and automatically generating test code from the model in one or more target languages. (Manu:Col 1:0004)

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark P. Francis whose telephone number is (571)272-7956. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai T.An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark P. Francis

Patent Examiner

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